

**IN THE SPECIFICATION:**

Please substitute the attached sections or paragraphs of pages 9, 10, 11 and 12 for the relevant sections or paragraphs of pages 9, 10, 11 and 12 of record.

#### Section 4 of Page 9 of Specification:

1.1.1) Start loop for the attenuator element (k)

$$\sigma_a = \sigma_a + Z_{(k)} \times \sigma_a$$
$$PE_{(i,j,k)} = PP_{(i,j,k)} - C_{(i,j,k)}$$

$$\mu_{a(i,j,k)} = [\sigma_{aPE(i,j,k)} + \sigma_{aPP(i,j,k)} + Z_{(k)} \times \sigma_{aC(i,j,k)}] \times \rho_{(k)} \times Av/A_{(k)}$$

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where:  $\sigma_{aPE(i,j,k)}$  = effective photoelectric absorption cross-section

$\sigma_{aC(i,j,k)}$  = Compton effective absorption cross-section

**Section 2 of Page 10 of Specification:**

$$\mu_{a(i,j)}^{(NaI)} = [\sigma_{a(i,j)}^{(NaI)} + Z_{(NaI)} X \sigma_{a(i,j)}^{(NaI)}] X \frac{A_v}{A_{(NaI)}} X \rho(NaI)$$

## Section 2 of Page 11 of Specification

$$\sigma_{\text{diff}(j)}(\text{NaI}) \times z_{(\text{NaI})} \times \text{Final flux}_{(i,j),k} \times \frac{A_v}{A_{(\text{NaI})}} \times \rho_{(\text{NaI})} \times$$


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## Section 2 of Page 12 of Specification

$$= \frac{\sigma_{\text{dif}_{C(j)}}(\text{NaI}) \times Z_{(\text{NaI})} \times \text{final flux}_{(i,j,k)} \times A_v \times \rho_{(\text{NaI})} \times X_{(\text{NaI})}}{A_{(\text{NaI})}}$$


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where:  $\sigma_{\text{dif}_{C(j)}}(\text{NaI})$  = effective Compton front scattering cross-section

## Section 5 of Page 12 of Specification

$$= \sigma_{\text{dif}_{\text{C}(\gamma)}}(\text{NaI}) \times Z_{(\text{NaI})} \times \text{final flux}_{(i,j,k)} \times \frac{A_v}{A_{(\text{NaI})}} \times \rho_{(\text{NaI})} \times X_{(\text{NaI})}$$

where:  $\sigma_{\text{dif}_{\text{C}(\gamma)}}$  = effective Compton background scattering cross-section.